

Most Americans know at least something of the epic journey led by U.S. Army Captains Meriwether Lewis and William Clark. There is probably no more adventurous duo in American history. They recruited a squad of men, gathered supplies, and set out up the Mississippi and Missouri Rivers to explore the western frontier. They failed to find a passage to the Pacific Ocean, but their accomplishments were literally "death-defying" and the impact of their explorations on civilization was immeasurable. Their names are so ingrained in our collective memory that we seldom mention one without naming the other. The two surnames have even melded into one, "LewisandClark."

The frontier they explored was unknown to the early American settlers. Some scholars believed the group would encounter giant salt plains in the middle of the continent. Even Thomas Jefferson believed that the expedition might find herds of woolly mammoth and giant

ground sloths. The truth was no one knew what to expect.

The saga of the Lewis and Clark expedition makes our outdoor experiences pale in comparison. We no longer have vast frontiers to explore on the continent but you can be, at least a little, like the men of the "Corps of Discovery." During the next couple of months, we will offer several programs in which you can learn about and in some cases even try your hand at some of the skills which were essential for members of the Corps.

On Sunday, July 13, from 1-3pm, primitive skills specialist Don Brink will present a demonstration on the "lost art" of cordage—making rope by hand from plant fibers. This skill was essential to the Native American tribes the Corps of Discovery encountered along their journey and may have come in handy for the members of the Corps itself.

Meriwether Lewis was quite knowledgeable about the medicinal uses of plants. There are numerous entries in his journals concerning edible plants found along the route of the journey. You can increase your own knowledge of medicinal and edible plants

hunting large, and sometimes small, creatures to nourish and clothe the men along the course of the journey. You, too, can learn the essentials of animal tracking by stopping by Sunday, August 10, from 1-3pm, as primitive skills specialist Don Brink returns to teach us these skills.

When it comes to learning about the journey, our best source of information is the journal kept by the leaders of the expedition. But if you want to know what it would have been like to be a working member of the crew, be sure to join us on Tuesday, August 12, from 7-8pm, as Historical Interpreter Grady Manus portrays the character of a crewman among the Corps of Discovery.

If you're looking for an educational experience your whole family can enjoy, plan on attending Frontier Fridays. We'll host three sessions of Frontier

Expand Your Horizons with Lewis and Clark

by joining us on Saturday, July 19, from 11am-1pm, as guest presenter Bob Liebert instructs us in the uses of some of the plants which still grace our landscape today.

The Lewis and Clark expedition would surely have failed had the crew not been knowledgeable about wild-life—especially game animals. It was essential that members of the Corps be proficient in the art of tracking and

Fridays on July 18, July 25, and August 15 during which we'll explore several different topics related to the expedition including journaling, mapping, and mammals.

So please plan to join one, or several, of our Lewis and Clark-related experiences. While we won't be exploring any new frontiers, there will be plenty of opportunities to **expand** your horizons.

Chipping In ...

Volunteer Naturalist Art Daniels has been observing nature and taking photographs of his discoveries for almost 30 years. For 25 years, he has taught students to develop an interest in science and to become explorers. Both of these talents brought him to the nature center's volunteer program in 1998.

Art started as a science teacher in Western Grove, Arkansas. Here in Springfield, he has taught at Greenwood Lab School, Hillcrest High School, Pleasant View Middle School, and will teach seventh grade science at

Art Paniels

Pershing Middle School next year. His classroom is filled with opportunities for discovery. He has fish and reptile aquariums and numerous plant species displayed to encourage kids to hone their observational skills. He feels there is great importance in letting kids discover nature firsthand so he has taken students snorkeling in Florida and twice to the rain forest in Belize, Central America. Art shares his love for teaching with his wife, Jill, who instructs kindergartners at Wilder Elementary.

The View From The Bridge

As the mercury rises, fewer people walk the trails and those that do generally report that they didn't see much wildlife activity. In truth, they probably spotted more wildlife on a walk in the woods in summer than in any other month. They just didn't **notice** the activity. People flock to the woods in the spring in hopes of glimpsing baby animals; during fall, bird migration is most noticeable; and winter provides great wildlife viewing when the trees are bare. Summer, however, belongs to the insects.

These diminutive creatures surround us, yet most people don't notice them unless they're biting, buzzing around our ears, or just "bugging" us in general. With millions of different species, insects certainly win the prize in the animal kingdom for being both the most diverse **and** the most abundant. Biologists estimate that insects make up 70% of all animals on earth!

Their life cycles, food gathering, mating activities, and life and death struggles for survival are just as interesting as those of larger animals, but on a smaller scale. And even if you don't see them, they make their appearance known by the sounds they make to attract a mate or to scare off a predator. After a short time, however, even their songs and calls become monotonous and are relegated to background noise—no less intrusive than quiet elevator music. Hey, it's no wonder they occasionally bug us, just to get our attention and respect!

Arguably, insects are among the most interesting creatures on earth, if for no other reasons than for their sheer abundance and accessibility, especially to kids. In that case, the old adage "if you can't beat 'em, join 'em" fits. Join us and other insect specialists for our annual Insect-O-Rama event on Friday, August 22, from 7-9pm. You're sure to experience insects on a whole new level. Bug spray is optional.

Linda F. Chorice Nature Center Manager

As a nature center volunteer, he teaches others to explore their outdoor interests by presenting beginning photography programs. Last fall, he traveled to Colorado for a workshop on birds of prey which provided excellent photo opportunities. With this experience and great photos, he teamed up with Volunteer Naturalist Bob Ball and presented a program entitled "Raptor Review." Art's keen observational skills helped him choose his best pictures for consideration in the Conservation Department's 2003 Natural Events Calendar. His pink dogwood photo graces the cover of this annual publication and eight other of his photographs are included. Last summer, he traveled over four Missouri counties for the Department of Agriculture conducting a gypsy moth survey. He is also a member of the Southwest Missouri Camera Club, Greater Ozarks Audubon Society, and a docent at Dickerson Park Zoo. Art also finds time to watch his seventeen-year old son, Adam, participate in basketball, soccer, and tennis.

You might want to take a lesson from this skilled teacher, photographer, and nature explorer. By often visiting the nature center, you can learn a new skill at one of the many programs, explore the trails, and discover nature firsthand. In doing so, you will thank Volunteer Naturalist Art Daniels for "chipping in."

Thank you

We would like to thank Ross Andrew and Amy McCroy for donating various natural objects; Betty Forrester, E. Thompson, and Brownie Girl Scout Troop 536 for donating bird seed; Ruth Kelley for educational resources; Ezra Gramm for a feeder; and Shawn Manis for bringing turtles to the May Conservation Kids' Club meeting.

Volunteer Milestones

Bob Ball	3000 Hours
Liz Behle	1500 Hours
Jackie West	1250 Hours
Mike Mihalik	
Don Schwiethale	1000 Hours
Debbie Good	500 Hours
Doug Gilliam	200 Hours



Events at the Springfield Conservation Nature Center For programs requiring registration, call 888-4237.

Registration for all programs begins the first day of the month.

Hiking Club Tuesday, 6-9pm

Enjoy an evening stroll with Volunteer Naturalist Doug Gilliam at Ritter Spring Park. Meet at the nature center and carpool. Hike is three miles. Ages 18-adult. Registration required.

Story Time With Ms. Ladybug Wednesday, 11-11:30am

Join Volunteer Naturalist Joyce Tolliver as she reads a nature story. Ages 2-6.

Bored? Measure A Board Friday, 10-11:30am

Join Volunteer Naturalist Earl Niewald and use the tools of a forester to determine the volume of wood in a tree. Calculate how many trees are needed to build a house, find out how many books or toothpicks can be made from a single tree, and more. Meet at Living Memorial Park. Ages 9-12. Registration required.

Hunter Education Friday, 6-9pm and Saturday, 8am-4pm

This 10-hour course is required for anyone born after January 1, 1967 who wants to hunt with firearms in Missouri. This course is continued on Saturday from 8am to 4pm (lunch break given-lunch not provided). You must pass a written test to be certified. Ages 11-adult. Call today to register.

For Adults Only Caving Saturday, 8am-5pm

Exploring caves or spelunking is always an adventure. Be part of the fun as Volunteer Naturalist Carmen Hallock leads an exploration into two caves at nearby Fuson Conservation Area. Meet at the nature center and carpool. Inquire about special instructions when you call to register. Ages 18-adult. Registration required.

Primitive Skills Series Making Cordage Sunday, 1-3pm

Volunteer Naturalist and primitive skills specialist Don Brink demonstrates how to weave plant fibers into cordage. Try your hand at this ageold skill and learn about the plants primitive man used to make cordage. Stop by anytime.

5 Conservation TEEN Club North Fork Float Trip Tuesday, 8am-5pm

The North Fork River is known for its large feeder springs and wild character. Come along as we explore one of the most popular streams in the Ozarks. Transportation, canoes, and lunch provided. Permission slips must be signed and returned prior to departure. Ages 12-17. Registration required.

Frontier Friday Etch And Sketch Nature Journaling Friday, 10am-Noon

Discover the art of nature journaling and learn how to "etch" an outdoor experience in your mind by sketching and writing about your outdoor explorations—just like Lewis and Clark! No prior art or writing experience is necessary, just an interest in and a curiosity about the outdoors. Families.

Babes In The Woods 19 Goes Exploring *Saturday*, 10-10:45am

Sacagawea and her baby survived the "journey of discovery" 200 years ago. Pack up your papoose (0-2 years old) for this guided trail adventure. Registration required.

Medicinal And Edible Plants Saturday, 11am-1pm

Join Bob Liebert, owner of Teter Creek Herbs and author of Common Medicinal Herbs Of The Ozarks, to learn how Native Americans and early pioneers relied on plants for curing their ailments and feeding their families. Ages 10-adult. Registration required.

Hiking Club Saturday, 2-10pm

Join Volunteer Naturalist Doug Gilliam on a four-mile hike at Roaring River State Park. Bring your own drinks and food. Meet at the nature center and carpool. Ages 18-adult. Registration required.

Summer Hummers *Sunday*, 5-6:30m

Nesting is complete and both adult hummingbirds and their young are visiting feeders. Join hummingbird bander Sarah Driver as she shares her knowledge about Missouri's smallest bird and attempts to capture and band some. Families. Registration required.

Babes In The Woods LL Goes Exploring Tuesday, 10-10:45am

[Same as July 19]

Frontier Friday Charting Your Course-Mapping Friday, 10am-Noon

Early pioneers used a method called "dead reckoning" to map their travels. A landmark ahead was sighted and the distance was estimated. After an auditorium presentation to learn how Lewis and Clark explored their way through Missouri, go outside to map and follow a charted course. Families.

Conservation Kids' Club Grustacean Sensation Tuesday, 6:30-7:45pm

Get a "taste" for crustaceans as you meet (and eat!) the lowly crayfish. Learn about this crusty crustacean through stories, activities, games, and exhibits. Bring a pre-washed piece of clothing to paint with crayfish stamps. Ages 7-12. Please, no younger children. Registration required.

Enjoy a naturalist-quided hike for families on the first Saturday of each month from 9 to 11am.



Movies are shown each Sunday from 2 to 3pm.

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Movies are shown each Sunday from 2 to 3pm.

Story Time With Ms. Ladybug

Wednesday, 11-11:30am

Join Volunteer Naturalist Joyce Tolliver as she reads a nature story. Ages 2-6.

Hiking Club Thursday, 6-9pm

Hike your way upstream and look for aquatic life along a local creek with Volunteer Naturalist Doug Gilliam. Meet at the nature center and carpool. Ages 18-adult. Registration required.

Babes In The Woods And Bugs, Too Friday, 10-10:45am

Grab your stroller and join the fun! You and your favorite Little Person (0-2 years old) will be introduced to the wonders of the outdoors as well as to the fascinating bugs found there. Registration required.

Hunter Education Friday, 6-9pm and Saturday, 8am-4pm

This 10-hour course is required for anyone born after January 1, 1967 who wants to hunt with firearms in Missouri. This course is continued on Saturday from 8am to 4pm (lunch break given-lunch not provided). You must pass a written test to be certified. Ages 11-adult. Call today to register.

Pragons Of The Insect World Saturday, 2-4pm

Dragonflies may look beautiful and delicate to you, but to many insects they are fierce and hungry predators to be avoided. Join Volunteer Naturalist Mike Mihalik and learn about the lifestyles of these mysterious dragons of the insect world. Families. Registration required.

Primitive Skills Series **Animal Tracking** Sunday, 1-3pm

Volunteer Specialist Don Brink teaches how to identify animal tracks and patterns and how to solve the mystery of where an animal was going, what it was doing, and other clues they leave behind to give us insight into their secretive lives. Ages 10-adult. Registration required.

A Visit With George Tuesday, 7-8pm

Discover what it was like to be a member of the Lewis and Clark expedition. This well-documented journey was more than the many miles traveled or the scientific observations made-it was a great American adventure. Listen to George Drouillard, hunter and interpreter for the Corps of Discovery, recount his journey west. Then visit with Volunteer Naturalist and Historic Interpreter Grady Manus about the character he has just portrayed. Ages 12-adult. Registration

14 For Adults Only Creek Fishing Thursday, 6-9pm

Beat the heat by wading in a local creek for some summertime creek fishing. Rods, reels, and tackle will be provided. Bring your own gear if you have it. Meet at the nature center and carpool. Ages 18-adult. Registration required

15 Frontier Friday Missouri Mammals Friday, 10am-Noon

Do you know enough about animals to survive on the frontier? After a brief introduction to Missouri mammals, your "hunting" skills and knowledge of furbearers will be put to the test. Families.

> Visit the Missouri Department of Conservation building at 🗩 the Ozark Empire Fair from

Friday, 8am-1pm After a brief introduction to insects and insect collecting, we'll travel to a local conservation area to gather specimens to add to the nature center's collection.

Friday, July 25 to Sunday, August 3. Meet the Lewis and Clark dugout canoe crew from 11am to 7pm daily to learn about the forest, fish, and wildlife resources in Missouri 200 years ago.

Babes In The Woods 6 And Bugs, Too Saturday, 10-10:45am

[Same as August 8]

Hiking Club Saturday, 2-10pm

Get a great view of the crystal clear waters of Bennett Spring while hiking. Meet at the nature center and carpool. Bring your own food and plenty to drink. Hike is six miles. Ages 18-adult. Registration required.

Insect-0-Rama

Friday, 7-9pm
Insects—they fascinate us, they bug us, they surround us, they bite us-but what would a summer evening be like without them? Join SMSU Professors Mike Roling and Chris Barnhart and other insect specialists for an evening devoted to discovering insects. Grab your entire family and participate in some creepy-crawly fun! All ages.

Summer Hummers *Sunday*, 4-5:30pm

Both adult hummingbirds and their young are visiting feeders prior to fall migration. Join hummingbird bander Sarah Driver as she shares her knowledge about Missouri's smallest bird and attempts to capture and band some. Families. Registration required.

Banding Summer's Hummers *Sunday*, 5:30-7pm

Stop by and watch hummingbird bander Sarah Driver as she captures and bands these amazing birds. Families.

Conservation TEEN Club Insect Collecting

Ages 12-17. Registration required.

Little Acorns . . .

Little Acorns programs are for children 3-6 years and are 45-minutes in length. Please limit **Little Acorns** programs to one per month. Registration begins the first day of the month.

July

Ant Antics

March right in to learn more about the lives of these common insects. Meet the real thing firsthand and take home your own "ant."

Tuesday, July 15, 1pm or 6pm Saturday, July 19, 10am

Bee Bustle

What are those bees up to as they bustle about all day? Buzz on in and learn about the "buzzy" daily lives of bees inside and outside the hive. Registration begins June 15.

Wednesday, July 2, 11am or 1pm Saturday, July 19, 1pm

Cool Cave Creatures

Don't be in the dark about those cool cave creatures and features. Join the fun as we go "underground" to see what life is all about in a cave.

Friday, July 11, 1pm or 3pm

August

Butterfly Magic

Butterflies grow up in a magical way. Come learn the butterfly's life cycle—from its humble beginnings to its glorious finish.

Wednesday, August 13, 10am or 1pm Saturday, August 16, 1pm

Miniature Music Makers

Grasshoppers, crickets, and katydids provide some of the wonderful noises we hear in summer. Learn how and why they make "music" and make a little insect music yourself.

Thursday, August 7, 10am or 1pm

Something Fishy

Join us as we go "underwater" to get a close-up look at fish without getting wet.

Friday, August 29, 10am or 1pm Saturday, August 30, 10am

Back-To-School Bash

Taking Learning Outdoors

Wednesday, August 6 8am-4pm

Andy Dalton Shooting Range and Training Center

These workshops will concentrate on merging classroom learning with the outdoors. Participants will receive lesson plans that will feature Missouri Department of Conservation's field research which will be applied to the Show-Me Standards/MAP correlations. Call the nature center for a flier of the day's activities or to register.

Educator Courses Offered . .

Ozark Streams: Conservation and Management
Jerry Presley Education Center (near Eminence), July 7-9, 1 credit hour
For more information, contact Regional Outdoor Skills Supervisor Regina
Knauer at 417/895-6880 x1068.

Beyond SEEPS: Conservation and Early Childhood Literacy Jerry Presley Education Center (near Eminence), July 21-24, 2 credit hours For more information, contact Regional Outdoor Skills Supervisor Regina Knauer at 417/895-6880 x1068.

Nature Nook Gift Shop

Featured special will be the new A Paddler's Guide To Missouri publication. The book retails for \$6.00 but will be 20% off in July and August (no other discounts apply).

Harbinger Highlights . . .

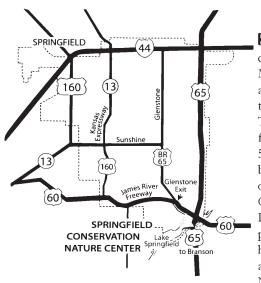
Defined, harbinger (pronounced här'bĭn-jər) is anything that fore-shadows a future event; omen; sign. The travels of Lewis and Clark were a sign of the times for traders and early settlers moving west-ward in search of abundant resources. Lewis and Clark discovered many rich and plentiful resources in Missouri in 1804 as shown in these entries taken **directly** from their journals:

May 30—"This river waters a most delightfull country; the land lies well for cultivation, and is fertile in the extreem ... it is covered with lofty and excellent timber; and supplyed with an abundance of fine bould springs of limestone water."

June 17—"... the Country about abounds in Bear Deer & Elk..."

June 26—"This handsome bird [Carolina parakeet], bright green
with yellow head... moved about in compact flocks often numbering hundreds." [Lewis and Clark were the first to record its
presence west of the Mississippi.]

June 30—"... Deer [were] to be Seen in every direction and their tracks are as plenty as Hogs about a farm ..."



HOURS—The area is open daily 8 a.m. to 9 p.m. from March 1 to October 31, and 8 a.m. to 6 p.m. during the remainder of the year. The building is open daily from 8 a.m. to 5 p.m. year 'round. The building and area are closed on Thanksgiving, Christmas, and New Year's Day. The area is closed to pets, bicycles, roller blades, hunting, fishing, collecting, and alcoholic beverages. No fees are charged.

STAFF	SPRINGFIELD CONSERVATION NATURE CENTER
Linda Chorice	Manager
April Dozier	Interpretive Programs Supervisor
Kim Banner	Naturalist
James Dixon	Naturalist
Donna Legg	Naturalist
Becky Low	Naturalist
Rudy Martinez	Naturalist
Debbie Baker	Office Supervisor
Nelda Hendrix	Administrative Staff Assistant
Cole Chatman	General Clerk
John Hinkle	Maintenance
Paula Mangan	Maintenance
Eric McMillan	Maintenance
Dave Rutledge	Maintenance
Mike Tillman	Maintenance
Mike Wilson	Maintenance

Gather the whole family and make plans to attend...



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